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Can we agree we just had a rupture? Patient-therapist congruence on ruptures and its effects on outcome in brief relational therapy vs. cognitive behavioral therapy

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Abstract

Background: To draw clinically meaningful evidence-supported implications about the alliance-outcome association, recent studies have investigated patient-therapist congruence on ruptures in alliance. The present study investigated patient-therapist congruence on ruptures and its consequences on subsequent session outcome in two types of treatments that differ in the training therapists receive to identify ruptures: brief relational therapy (BRT), in which therapists receive alliance-focused training, and cognitive behavioral therapy (CBT), where no training specifically focused on the alliance is provided.

Method: We implemented polynomial regression and response surface analysis, and the truth and bias model on data of 162 dyads reporting weekly on their levels of ruptures, for 30 sessions, during either CBT or BRT.

Results: Therapists and patients exhibited substantial temporal congruence in their session-by-session rupture ratings. Therapists showed a tendency to detect more ruptures than did their patients. This tendency correlated with higher levels of congruence, and was more evident in BRT than in CBT. Agreement and disagreement between patients and therapists on the question of whether or not a rupture had occurred was found to have a greater effect on subsequent session outcomes in BRT than in CBT.

Conclusions: Therapists who are more attuned to their patients may demonstrate greater vigilance in identifying ruptures than their patients do. This vigilant stance may be taught. Greater

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congruence may result in better subsequent session outcome throughout treatment in BRT than in CBT.

Keywords

alliance; alliance ruptures; congruence; vigilant stance; psychotherapy process

Decades of research have established that stronger alliance is associated with better outcome (Flückiger, Del Re, Wampold, & Horvath, 2018; Horvath, Del Re, Flückiger, & Symonds, 2011). In recent years, studies have started to examine more detailed clinically-relevant questions to understand the essence of this association. These studies yielded important new information, making the empirical literature more and more relevant to day-to-day clinical practice (Zilcha-Mano, 2016, 2017). Contemporary theories of the alliance stress the important role of ruptures in the alliance across psychotherapy orientations, especially in treatments in which alliance is conceptualized as a main mechanism of change (Safran & Muran, 2000; see also Bordin, 1994). Based on these contemporary theories of alliance, many studies have investigated the effects of ruptures in the alliance and demonstrated their adverse effects on the process and outcome of treatment (Eubanks, Lubitz, et al., 2019; Muran, 2018). The literature also posits that ruptures serve as an interpersonal marker indicating a critical opportunity for exploration and understanding of the processes that perpetuate maladaptive interpersonal patterns (Safran & Muran, 1996). By systematically exploring, understanding, and resolving ruptures in the alliance, the therapist can provide patients with a new constructive interpersonal experience that has the potential to alter their maladaptive patterns of relating to others (Safran & Muran, 2000). These theoretical conceptualizations have received empirical support from meta-analyses pointing to the importance of rupture resolution processes (Eubanks et al., 2018). One of the most intriguing questions left open is which report of ruptures in the alliance matters more, the patient's or the therapist's, and what happens when they agree as opposed to when they differ.

In the past, the perception was that one report counts more than the other (Muran & Barber, 2010). Some have argued that therapists have a better perspective because of their professional knowledge, training, and experience;therefore, they may be more aware of undesirable processes in treatment, including those occurring in the therapeutic alliance (Zilcha-Mano, Snyder, & Silberschatz, 2017). Therapists may have a broad perspective that enables them to compare between patients, and they may also learn from experience to look out for undesirable processes developing in the therapeutic alliance (Safran & Muran, 2000). They also have a sense of how alliance generally develops during treatment, and they know what to expect, so they can be more sensitive in identifying deviations in which the treatment is not on track (Gardner, Lipner, Eubanks, & 2019). Others, however, argued that the patients are the ones whose opinion counts the most, because they are the consumers who sought treatment and know themselves better than does anyone else. They argued that patients are the best to judge whether the way in which the treatment develops enables them to benefit most from it (Rogers, 1957).

The attempt to judge “who counts” was further supported by the evidence from a meta-analysis showing that patients’ and therapists’ perceptions of the alliance are only moderately related to one another, with therapists generally showing a tendency to rate the alliance as being less strong compared to their patients (Tryon, Blackwell, & Hammel, 2007). The search for “who counts” tended to conclude that it was the patients’ perception of alliance that counts (Horvath et al., 2011) and not the therapists’ (Del Re, Flückiger, Horvath, Symonds, & Wampold, 2012). Yet, exceptions are abundant. For example, it has been shown that in some treatments it is the therapist’s view of the alliance that has greater effect on treatment outcome (Zilcha-Mano, Snyder, & Silberschatz, 2017), or that both patients’ and therapists’ reports on alliance and ruptures have a unique effect on treatment outcome (Rubel et al., 2018; Zilcha-Mano, Muran, et al., 2016). Findings, therefore, appear to be inconsistent and contradictory.

In recent years, theory and research have started counting both therapist and patient perspectives by integrating the perceptions of both and treating alliance ruptures as a dyadic construct (Eubanks, Muran, et al., 2018; Safran & Muran, 2000). Focusing on the extent to which the dyad agrees or disagrees on the occurrence of alliance ruptures may produce critical information for tracking the process of treatment. Focusing on alliance rupture as a dyadic construct receives support from contemporary theoretical conceptualizations (Aron & Harris, 2014). Such focus is further enhanced by advances in analytic methods used in social psychology to investigate dyadic effects between romantic partners (Iida, Seidman, & Shrout, 2018) which have been imported to clinical psychology research as well (Kivlighan, 2007; Marmarosh & Kivlighan, 2012).

The progress in theory and analytic methods, which contributed to the focus on alliance ruptures as a dyadic construct, resulted in two important paths of investigation. The first path focuses on the level of congruence and bias between patients’ and therapists’ reports; the second on potential effects of such congruence (operationalized as levels of agreement and disagreement) on treatment outcome. Although they did not assess ruptures directly, studies following the first path have shown that patients tend to report higher levels of alliance than their therapists, whereas therapists are more vigilant, which may be related to greater congruence (Atzil-Slonim et al., 2015; Kivlighan & Marmarosh, 2018; Rubel, Bar-Kalifa et al., 2018). These studies suggest that it is important for therapists to adopt a vigilant stance, that is, to carefully monitor the alliance, to be more sensitive to minor nuances in it, so to be able to respond to alliance ruptures as early as they start to emerge. It remains an open question whether these findings regarding therapists’ tendency to adopt a vigilant stance toward the alliance will replicate when testing directly patients’ and therapists’ report on alliance ruptures. Even more important, these studies focused on alliance as it unfolds during the course of treatment, but studies have yet to use experimental designs in which such a vigilant stance is manipulated. It is an open question, therefore, whether therapists can be trained to adopt a more vigilant stance through training that focuses on raising their awareness of ruptures and improving their skill in identifying them.

The second path focuses on the ability of agreement and disagreement on alliance and alliance ruptures to predict subsequent treatment outcome. The only study that explored this question by measuring ruptures directly found that sessions in which either only the patient

or only the therapist experienced the rupture were especially detrimental for next session outcome (Rubel, Zilcha-Mano et al., 2018). This study, however, did not explicitly examine the effects of agreement and disagreement on treatment outcome. Although recent studies did not focus directly on patients' and therapists' reports of alliance ruptures, they inferred them from changes in alliance, as reported by patients and therapists. Some of these studies have suggested that agreement on higher levels of alliance was associated with better subsequent outcome than agreement on lower levels of alliance (Rubel, Bar-Kalifa, Atzil-Slonim, Schmidt, & Lutz, 2018). Other studies, however, found a curvilinear association, in which agreement on either high or low levels of alliance was associated with better outcome than agreement on mid-levels of alliance (Zilcha-Mano et al., 2017) or that outcome improves as the average levels of alliance increases, but it does so at a decreasing rate as agreement increases (Marmarosh & Kivlighan, 2012). Mixed findings were reported for alliance disagreement as well. Whereas some studies suggest no effect of disagreement on subsequent outcome (Zilcha-Mano et al., 2017), others found a curvilinear associations, although each in the opposite direction: whereas one study reported a positive curvilinear association with outcome (Marmarosh & Kivlighan, 2012), the other found a negative one (Rubel, Bar-Kalifa, et al., 2018).

It has been suggested (Rubel, Bar-Kalifa, et al., 2018) that the mixed results can be explained by the different therapy orientations characterizing the treatments reported in the various studies, including CBT (Rubel, Bar-Kalifa, et al., 2018), dominantly analytic/dynamic/integrative treatment (Marmarosh & Kivlighan, 2012) and treatment based on control-mastery theory (Zilcha-Mano et al., 2017). In some of these treatments, the alliance is often conceptualized as an active ingredient (e.g., psychodynamic treatment, and control-mastery theory), whereas in others (e.g., CBT) it is perceived as a common non-specific factor. It can be expected that rupture agreement and disagreement have a more pronounced effect on outcome in the former than in the latter. Agreement on ruptures is expected to have an especially great effect on outcome in BRT, where repairing ruptures in the alliance is conceptualized as the main mechanism of change (Safran & Muran, 2000). To collaboratively and effectively work on repairing ruptures, patients and therapists need to reach agreement on them.

In the present study we focus on ruptures in the alliance, reported by patients and therapists, as a dyadic concept. Consistent with the two paths of investigation of alliance levels and rupture congruence outlined above, we have two main aims in the present study. In accordance with the first path of investigation of alliance congruence and bias, our first aim was to examine patient-therapist congruence and bias in alliance rupture rating. We focused on the following four questions: (a) Are patients and therapists in congruence on the ruptures occurring between them in treatment? (b) Are therapists more vigilant in identifying ruptures? (c) Is a more vigilant stance related to greater congruence? (d) Are therapists who have been taught to be more vigilant actually more sensitive to ruptures? Based on the above mentioned theoretical conceptualizations and recent findings, we expected patients' and therapists' ratings of ruptures to be in congruence with one another, and therapists to adopt a more vigilant stance, which in turn would be related to higher congruence. In the present study, about half the therapists received alliance-focused training (AFT, Safran & Muran, 2000) aimed at adopting a more vigilant stance toward alliance ruptures. As noted in the

method section below, therapists were trained to identify nuanced changes indicating the presence alliance ruptures, as soon as they emerged. We expected that therapists in the BRT condition, who received AFT, would adopt a more vigilant stance than therapists who did not receive such a training.

In accordance with the second path of investigation, our second aim was to examine the consequences of agreement and disagreement between patients and therapists on ruptures in alliance on subsequent sessions outcome in BRT vs. CBT. In CBT, the alliance is expected to serve the role of a common factor that is shared across most if not all forms of therapy (Laska et al., 2014; Rosenzweig, 1936), and to act as a necessary but insufficient condition for treatment to be effective, enabling the implementation of other therapeutic ingredients, such as change in distorted cognition (Castonguay, Constantino, McAleavey, & Goldfried, 2010). Similarly to other classical CBT treatment manuals, in the one used for the current study, no specific therapeutic role is assigned to alliance ruptures (Turner & Muran, 1992). By contrast, the conceptual model underlying BRT assigns an important role to ruptures in the alliance, and conceptualizes the repair of ruptures as the main mechanism of change. BRT is a typical example of alliance serving not only as a common factor, but also as a specific one, in the form of rupture resolution processes. The BRT manual describes in detail which techniques therapists may use to resolve ruptures and disagreements appearing in the alliance between the patient and the therapist. We expected to find that agreement and disagreement on ruptures has a greater effect on outcome in BRT, where rupture resolutions are conceived as the central mechanism of change in treatment, than in CBT, where they are not. Previous studies, which had some overlap in sample with the current one, focused on alliance ratings and showed a temporal relationship between alliance and outcome, especially in BRT (Zilcha-Mano, Muran, Eubanks, Safran, & Winston, 2018; Zilcha-Mano, Muran, et al., 2016), and on alliance ruptures and showed that they preceded sudden gains in alliance (Zilcha-Mano, Eubanks, & Muran, 2019).

Method

Participants

Data from one hundred and sixty-two patient-therapist dyads, who had both patients' and therapists' alliance rupture assessments, were used. Patients were assigned to one of two treatment conditions: CBT and BRT. The study was approved by the institutional review board of the relevant institution. Patients were excluded from randomization for not meeting the following inclusion criteria: (a) 18–65 years old and (b) English fluency; or for meeting one of the following exclusion criteria: (a) evidence of organic brain syndrome or mental retardation, (b) evidence of psychosis or need for hospitalization, (c) diagnosis of severe major depression or bipolar disorder, (d) evidence of active substance abuse, (e) evidence of active Axis III medical diagnosis, (f) history of violent behavior or impulse control problems, and (g) evidence of active suicidal behavior. Mean age was 42.55 (SD = 13.87), and 110 participants (68.3%) were female. One hundred and seventeen (72.2%) were white, 5.6% black, 7.4% Hispanic, and 13.2% chose the "other" category or did not answer this question. At intake, 55.6% met criteria for a primary diagnosis of mood disorder, 25.8% for anxiety disorders, and 4.6% for adjustment disorder; 46.9% met criteria for multiple Axis I

diagnoses, and 46.3% had a primary Axis-II personality disorder. The most frequent personality disorders were avoidant (13.9%), obsessive-compulsive (10.6%), and not otherwise specified (20.5%). Of the patients, 60.7% were single, 24.7% married or remarried, 13.3% divorced or separated, and 1.3% widowed; 0.7% had some high-school education, 1.3% were high-school graduates, 16% had some college education, 37.3% college graduates, 11.3% had some post-graduate education, and 33.3% had graduate degrees.

Therapists

One hundred and twenty-nine therapists participated in the study. They were clinical psychologists (9.8%), psychiatry residents (9.8%), and psychology interns and externs (78.4%). Mean clinical experience was 4.17 years (Median = 3.5; *SD* = 2.36), mean age was 31.36 (Median = 31; *SD* = 4.1), and 70.6% were women. Most of the therapists (58%) were white, and the rest were Hispanic (10%), Asian (6%), or “other” (14%). The mean number of patients treated by each therapist in the current study was 1.2 (SD = 0.52; Median = 1, range: 1–3). Each therapist was randomized to conduct only one type of treatment in this study. Before being assigned a case, all trainees underwent an orientation seminar of six one-hour lectures that introduced the theory, technique, and case formulation of the treatment modality to which they were randomized. Each trainee was then assigned a case screened for admission, and began attending a weekly 90-minute group supervision seminar. Each seminar was conducted by two senior supervisors with extensive experience in supervising the given treatment orientation. Therapists who were not licensed continued under individual supervision. Individual and group supervisions in both CBT and BRT made extensive use of videotaped sessions for feedback.

Treatments

Two treatment models were used: CBT, which is a schema-focused model that implements such strategies as self-monitoring, cognitive restructuring, behavioral exercises, and experimentation to affect change in symptomatology and belief systems (*N* = 98, Turner & Muran, 1992), and BRT, described also as an alliance-focused treatment (Safran & Muran, 2000), which is based on an integration of principles derived from intersubjective theories and research on interpersonal process, emotion communication, and rupture resolution. BRT involves ongoing tracking and exploring of patient and therapist interactions (*N* = 64, Safran & Muran, 2000). Therapists in BRT, but not in CBT, received AFT, in which they were trained to be more vigilant in identifying ruptures in their alliance with their patients. The training includes a protocol on how to identify two types of ruptures: withdrawal (e.g., denial, minimal response, abstract communication, avoidant storytelling, changing the topic, deferential and appeasing attitude, content/affect split, self-criticism, and hopelessness) and confrontation (e.g., rejection of the therapist’s intervention by the patient, patients showing a defensive attitude toward the therapist, efforts to control or pressure the therapist, and complaints and concerns about the therapist, the activities in the therapy, the parameters of therapy, and progress in therapy). The concrete manifestations of each type of rupture were taught both in formal, frontal workshops and in supervision, where the supervisor and supervisee sought to identify ruptures in videotaped sessions. In CBT, no such training in alliance ruptures was provided.

Both treatments were manualized and designed to treat patients in a fixed, 30-session, one-session-per-week format. Treatment fidelity was tested using the observer-rated Beth Israel Fidelity Scale (BIFS; Patton et al., 1998; Santangelo et al., 1994). The following two subscales were used to test treatment fidelity: (a) the AFT scale −12 items developed to assess interventions associated with AFT, and (b) the CBT scale – 12 items developed to assess CBT interventions. Research assistants were trained to meet reliable standards (i.e., intraclass correlation > .90) in conducting the assessment. Eighty-two of the patients participating in this study were randomly sampled to evaluate treatment fidelity (36 CBT and 46 BRT). One session was randomly selected from the two treatments to assess early treatment fidelity using the BIFS (Sessions 3–7, mean = 4.77, SD = .91). A series of t-tests was conducted to examine differences in scale scores in each of the two treatments. Findings demonstrate that for each treatment condition, therapists showed significantly higher ratings on the scales designed to measure the treatment model they were assigned to conduct (*p*s < .0001) (for more details, see Zilcha-Mano et al., 2016).

Measures

Alliance ruptures.—We used the single item assessing ruptures from the Post Session Questionnaire (Muran, Safran, Samstag, & Winston, 1992; Muran et al., 2009; Safran, Muran, Samstag, & Winston, 2005) to measure ruptures in the alliance after each session, for 30 weekly sessions. The one item was answered by both patients (“Did you experience any tension or problem, any misunderstanding, conflict, or disagreement in your relationship with your therapist during the session?”) and therapists (“Did you experience any tension or problem, any misunderstanding, conflict or disagreement, in your relationship with your patient during the session?”) on a Likert scale, ranging from 1 (not at all) to 5 (constantly). The use of alliance ruptures as a continuous measure is in line with contemporary theories of alliance ruptures and repair (Eubanks, Muran, & Safran, 2015; Safran & Muran, 2000), and has demonstrated its utility in previous studies (Muran et al., 2009; Tufekcioglu, Muran, Safran, & Winston, 2013). This measure of alliance ruptures was found to be correlated with patient and therapist self-reports of the intensity of the ruptures (Muran, Safran, Gorman, Samstag, Eubanks-Carter, & Winston, 2009), with observer ratings of confrontation ruptures (Eubanks, Lubitz, Muran, & Safran, 2019), and with subsequent alliance scores (Zilcha-Mano, Eubanks, & Muran, 2019).

Outcome.—As a measure of session outcome, we used the *one-item session outcome* measure (Muran et al., 1992), as reported by patients after each session, for 30 weekly sessions. We used a single item in consideration of the time constraints of patients and to minimize self-report burnout (“To what extent are your presenting problems resolved?”). The one item was answered on a Likert scale, ranging from 1 (not at all) to 9 (completely). The validity of session outcome vs. overall treatment outcome has been demonstrated, with the slope of change in the session outcome measure being moderately-to-highly correlated with the slope of change in the Global Severity Index (GSI) of the Symptom Checklist-90—Revised (SCL-90–R: Derogatis, 1983), $t(108) = .58$, $p < .0001$ (Zilcha-Mano, Muran, et al., 2016).

Procedure

After describing the study to the patients, written informed consent was obtained. Session outcome and alliance rupture ratings were collected session-by-session for 30 sessions. Patients were informed that their therapists would not have access to their responses on these session measures. Further details on the design and procedures used are described elsewhere (Muran, 2002; Muran et al., 2018).

Data Transparency

The data used in this study have been previously analyzed and published with different aims Zilcha-Mano, Muran, Hungr, Eubanks-Carter, Safran, and Winston (2016), Zilcha-Mano, Muran, Eubanks-Carter, Safran, & Winston (2018a) and Zilcha-Mano, Muran, Eubanks-Carter, Safran, and Winston (2018b) used the session outcome variable; Eubanks, Lubitz, Muran, and Safran (2019) used the alliance ruptures measure, with some overlap in the sample; and Zilcha-Mano, Eubanks, and Muran (2019) used both the session outcome and alliance ruptures measure, to identify predictors of sudden gains in alliance.

Overview of statistical analysis

Following previous work (e.g., Rubel, Bar-Kalifa, et al., 2018), we used a two-stage analytic procedure: (a) to achieve our first aim, focusing on congruency and bias in patient and therapist reports on ruptures, we used the truth and bias model (West & Kenny, 2011); and (b) to achieve our second aim, focusing on the effects of agreements and disagreements in rupture ratings in CBT vs. BRT, we conducted response surface analysis by polynomial regression (Edwards, 2011; Edwards & Parry, 1993; Shanock, Baran, Gentry, Pattison, & Heggestad, 2010).

First aim: Are patients and therapists in congruence in their rupture rating?

We used the truth and bias model (West & Kenny, 2011) to examine temporal congruence (whether therapists' ratings tracked their patients' changing rupture ratings) and mean-level discrepancy (whether therapists' ratings were positively or negatively biased vis-à-vis their patients') in patient-therapist ratings of ruptures. The therapist's rupture rating for session *t* of patient *i* was predicted by an intercept (its coefficient representing the mean *directional discrepancy*), and by the patient's rupture rating in that session (its coefficient representing the mean *temporal congruence*). Directional discrepancy and congruence effects were allowed to vary between patients (i.e., random effects at level 2). Almost all therapists treated only one patient, therefore we did not include them as another grouping level (see Theall et al., 2011). The residual term quantifies the session-specific deviation from the expected value. To remove broad individual differences when examining within-person fluctuations, and for the intercept to represent the directional discrepancy, we centered the therapists' and patients' reports on ruptures on the patients' mean report on ruptures (for more details, see Rubel, Bar-Kalifa, et al., 2018; West & Kenny, 2011).

Given the nested nature of the data, we used hierarchically nested multi-level models:

$$\text{Rup\_therapist}_{it} = b_{0i} + b_{1i} * \text{Rup\_patient}_{it} + e_{it}$$

$$b_{0i} = b_{00} + u_i,\ u_i \sim N(0, \sigma_u)$$

$$b_{1i} = b_{10} + v_i, v_i \sim N(0, \sigma_v) \quad cor(u_i, v_i) = \rho$$

where $Rup\_therapist_{it}$ represents the ruptures as reported by the therapist in dyad i for session t, $Rup\_patient_{it}$ represents the ruptures as reported by the patient in dyad i for session t (both centered around the average report of ruptures by the patient in dyad i), and b_{0i} and b_{1i} represent the random discrepancy and congruence of dyad i, with a normal distribution and with the means b_{00} and b_{10} and standard deviations σ_u and σ_v, respectively.

To examine our first question (Are patients and therapists in congruence on the ruptures occurring between them?) and second question (Are therapists more vigilant in identifying ruptures?), we evaluated the temporal congruence and directional discrepancy between patients' and therapists' ratings of ruptures by assessing the mean (b_{00} and b_{10}) and variance (σ_u and σ_v) of temporal congruence and directional discrepancy between patients' and therapists' ratings of ruptures. To examine our third question (Are therapists who are more sensitive to reporting on ruptures also more congruent with their patients?), we examined the correlation (ρ) between congruence and directional discrepancy. To examine our fourth question (Are there potential differences between treatment conditions in both temporal congruence and directional discrepancy?), we introduced the effect of group into the model.

$$Rup\_therapist_{it} = b_{0i} + b_{1i} * Rup\_patient_{it} + e_{it}$$

$$b_{0i} = b_{00} + b_{g0} * group_i + u_i \sim N(0, \sigma_u)$$

$$b_{1i} = b_{10} + b_{g1} * group_i + v_i, v_i \sim N(0, \sigma_v) \quad cor(u_i, v_i) = \rho$$

The additional parameters b_{g0} and b_{g1} are the group effect on the mean directional discrepancy and congruence, respectively.

Second aim: Does the level of congruence have an effect on outcome in CBT vs. BRT?

To examine the difference between groups in the effects of agreement and disagreement between patients and their therapists on patients' subsequent session outcome, we conducted a multilevel model response surface analysis by polynomial regression (for more details, see Shanock et al., 2010), consisting of interactions between the following variables and treatment conditions: (a) patient rupture rating, (b) therapist rupture rating, (c) quadratic term formed by squaring the patient rupture rating, (d) quadratic term formed by squaring the therapist rupture rating, and (e) a cross-product term formed by multiplying the patient rupture rating by the therapist rupture rating. We controlled for all main effects and for time. To establish a temporal relationship between the predictors and session outcome, we used

the predictors at time T-1 to predict session outcome at time T, week by week, over the course of treatment (30 weeks). Before constructing the quadratic and cross-product terms, patients' and therapists' rupture rating were centered around the midpoints of their respective means (Marmarosh & Kivlighan, 2012).

We used the following model-based contrasts to compare the treatment conditions on two slopes and two curvatures along the response surface: (a) the slope of the line of agreement (patient's rupture rating = therapist's rupture rating); (b) the curvature along the line of agreement; (c) the slope of the line of disagreement (patient's rupture rating = - therapist's rupture rating); and (d) the curvature along the line of disagreement. If significant differences were found between conditions, plotting of the surface analyses for each treatment condition was used to shed light on the nature of the differences. For more information, see Edwards and Parry (1993) and Edwards (2011).

Results

First aim: Are patients and therapists in congruence in their rupture rating?

Findings regarding our first question suggest that therapists' rating of ruptures was temporally congruent with their patients' rating ($B = 0.316$, $p < 0.0001$; see Table S1 in the online supplements). Findings regarding our second question suggest that there is a significant bias ($B = 0.25$, $p < 0.0001$), with therapists tending to report on average about 0.25 higher scores on ruptures than their patients do. The estimated standard deviation of the congruence and discrepancy were 0.26 and 0.55, respectively, reflecting the levels of therapist variability in these measures around their means. This finding is consistent with patients' tendency to report higher alliances than their therapists, as has been consistently documented in the literature. Findings regarding our third question suggest that therapists who are more positively biased tend to demonstrate greater temporal congruence ($r = .44$, $p = 0.001$).

To examine our fourth question, we tested the effect of treatment condition on discrepancy and congruence (see Table S2 in the online supplements). There were significant differences in mean discrepancy between treatment conditions (D = 0.33, $p = 0.0005$). The mean discrepancy in the CBT condition was 0.12 vs. 0.44 in the BRT condition. In other words, therapists in the BRT condition showed a greater tendency than did therapists in the CBT condition to report on ruptures more frequently than their patients. There was no significant difference in congruence between the two conditions (mean of 0.27 in CBT vs. mean of 0.38 in BRT, a difference of 0.11, $p = 0.13$).

Second aim: Does the level of congruence have an effect on outcome in CBT vs. BRT?

The coefficients for the interactions of treatment condition with the five alliance variables (patient ruptures, therapist ruptures, patient ruptures^2, therapist ruptures^2, and patient ruptures × therapist ruptures) are presented in Table 1. As shown in Table 1, the interaction between treatment condition and therapist rupture rating was significantly and negatively related to patients' subsequent session outcome. The interaction between treatment condition

and the quadratic term of patient rupture rating was significantly and positively related to patients' subsequent session outcome.

To assess the differential effects between treatment conditions in patient and therapist rupture agreement or disagreement, we examined the linear combinations of the interaction effects, based on Edwards' (2011) recommendations and the derived response surface. We found a significant interaction between treatment condition and the slope along the line of agreement, $B = -0.28$, $p = .008$, and a significant interaction between treatment condition and the effect for the curvature along the line of disagreement, $B = 0.27$, $p = 0.03$.

To shed light on these significant interactions, we continued to assess the effects of patient and therapist rupture agreement and disagreement in each treatment condition. In the BRT condition, there was a significant negative slope along the line of agreement, $B = -0.25$, $p = 0.001$, and a significant effect for the curvature along the line of agreement, $B = -0.31$, $p = 0.03$. The curvature along the line of disagreement was also significant ($B = 0.2$, $p = 0.04$). By contrast, in the CBT condition, none of the effects were significant ($ps \geq .24$).

In Figure 1, the X axis represents patient-reported ruptures, the Y axis therapist-reported ruptures, and the Z axis patient subsequent session outcome. The line of agreement along which patient and therapist alliance ratings are in agreement (where the patient alliance rating = the therapist alliance rating) extends from the closest to the farthest corners of the plane. The slope of the response surface along the line of agreement shows the effect of agreement at high and low levels of patient and therapist working alliance. In the BRT condition, the significant slope and curvature along the line of agreement ($a_{linear} = -0.25$, $p = 0.001$) ($a_{curvilinear} = -0.31$, $p = 0.03$) combined with Figure 1 shows that on average, session outcome improves as the average patient and therapist ruptures decrease (given agreement between patient and therapist ruptures ratings). But at the highest levels of the average patient and therapist ruptures, session outcome improves as the average patient and therapist ruptures increases. In other words, agreement on fewer ruptures predicts better subsequent session outcome, unless patient and therapist agree on a large number of ruptures, in which case the more agreed-upon ruptures there are, the better the subsequent session outcome is.

The line of disagreement is the line along which patient and therapist rupture ratings are opposite (patient rupture rating = -therapist rupture rating). The line extends from the left to the right corner of the X-Y plane. The curvature along the line of disagreement was significant ($a_{curvilinear} = 0.2$, $p = 0.04$), suggesting that when focusing on disagreements between patients and therapists, subsequent session outcome is better when there is a high level of disagreement between patient and therapist ratings of ruptures than when there are lower or moderate levels of disagreement.[1]

[1]We reanalyzed the data with only one, randomly selected patient for each therapist (N = 129). The findings were very similar.

Discussion

Alliance ruptures play an important role in contemporary theories of alliance, in recent empirical investigations of the alliance, and in daily clinical practice. Alliance ruptures were also found to have neurobiological markers, manifested in higher increases in patients' oxytocin levels when patients and external coders identified ruptures in the alliance (Zilcha-Mano, Porat, Dolev, & Shamay-Tsoory, 2018). To draw clinically meaningful evidence-supported implications about the alliance-outcome association, recent studies have investigated patient-therapist congruence on ruptures in alliance. Most research has inferred rupture awareness based on general changes in alliance ratings from one session to the next. The present study is the first to investigate the congruence between patients' and therapists' direct reports of alliance ruptures, and its effects on subsequent session outcome.

The findings regarding our first aim suggest that patients and therapists tend to be in congruence on the ruptures occurring between them, although therapists tend to adopt a more vigilant stance than their patients. This vigilant stance was found to be associated with greater congruence between patients and therapists, so that therapists who tended to adopt a more vigilant stance (reporting more ruptures than did their patients), tended also to be more congruent with their patients about the ruptures occurring between them. This finding is consistent with previous reports showing that therapists who are more vigilant are more in congruence with their patients (Atzil-Slonim et al., 2015; Rubel, Bar-Kalifa, et al., 2018), and with suggestions to therapists to adopt a "better safe than sorry" stance regarding alliance ruptures (Atzil-Slonim et al., 2015; Marmarosh & Kivlighan, 2012). The present findings suggest that this is true even when testing awareness of alliance ruptures directly, based on patients' and therapists' reports at the end of each session. The present findings further add to the available literature by being the first to suggest that therapists' vigilant stance can be manipulated. Training therapists to increase their awareness of ruptures results in therapists adopting a more vigilant stance compared to that of their patients, although they did not significantly differ in level of congruence.

Consistent with theoretical conceptualizations, the findings regarding our second aim suggest significant differences between BRT and CBT in the importance of patient-therapist congruence for treatment outcome. In BRT, where alliance rupture and repair constitute a central mechanism of change, congruence on alliance ruptures was found to be significantly associated with subsequent session outcome. By contrast, in CBT, where alliance rupture and repair are not a central mechanism of change, congruence on alliance ruptures was not found to be a significant predictor of subsequent session outcome. Taken together, the findings regarding the levels of agreement and disagreement on alliance ruptures in BRT suggest that when there are indications of ruptures, extreme markers that may represent clear rupture alerts may be the most effective ones. Specifically, when therapists and patients agree that they did not have a rupture, they are predicted to have a better subsequent session outcome than when they agree that they had some indications of rupture. But when patients and therapists agree that they had at least some indications of rupture, agreement on higher levels of rupture appear to be associated with better subsequent session outcome than agreement on moderate levels. It can be speculated that agreement on moderate levels of rupture may leave patients and therapists uncertain or in disagreement on whether to

continue the work in treatment as usual or to attend to the rupture between them. However, when there is agreement between the patient and therapist that a severe rupture is under way between them, it may be easier for them to agree that they need to stop the other work of treatment in order to resolve the rupture.

Similarly, the findings also suggest that when there is disagreement between patient and therapist about whether they had a rupture, a high level of disagreement may be associated with better subsequent session outcome than less clear indications of disagreements. It is possible to speculate that a high level of disagreement makes the appearance of a rupture less vague. Massive disagreement of this type may leave the patient and therapist in an unambiguous situation regarding the need to discuss the rupture between them. Agreement on the task of treatment, that is, on what the patient and therapist should work on, is one of the three components of a strong alliance. When such agreement is absent, the patient and therapist cannot continue the work as usual, and may have no choice but to negotiate their disagreement. Negotiating interpersonal needs in the face of a rupture is expected to result in its successful repair. This process is at the heart of BRT, and is conceptualized as the main mechanism of change (Safran & Muran, 2000). These *post hoc* speculations need to be directly examined in future studies, using behavioral coding systems to code for the amount of discussion of the ruptures between patient and therapist aimed at working through their disagreement. Interestingly, we did not find that subsequent session outcome was better when therapists showed a more vigilant stance and reported more ruptures than did their patient, but rather that both patient and therapist reports of rupture were important. Future studies are needed to replicate this finding. Overall, the findings may suggest better subsequent session outcome in BRT either when patients and therapists agree that there are no ruptures, or when there are clear indications of ruptures to be repaired. Less obvious indications of ruptures appear to make the need to repair the ruptures less clear, or to result in less agreement between patients and therapists on whether to engage in the taxing process of repairing ruptures in the alliance.

The present findings regarding the importance of congruence between patients and therapists on alliance ruptures for treatment outcome are consistent with some of the recent studies focusing on patient and therapist reports of alliance levels. These studies suggest that agreement on alliance is associated with subsequent treatment outcome (e.g., Rubel, Bar-Kalifa, et al., 2018). Because our study focuses explicitly on patient and therapist awareness of ruptures, we were able to further investigate more nuanced elements of patient-therapist agreement and disagreement. The new knowledge created by this study concerning the importance of clear markers of ruptures for subsequent effective processes in treatment needs to be validated in future research, including future studies that will integrate external observer ratings of ruptures with self-report alliance rupture measures.

This is the first study to compare the effect of patient and therapist level of congruence between two treatments that differ in the role of alliance in treatment. The findings reveal that congruence on alliance ruptures has greater effect in the treatment where alliance rupture and repair is conceptualized as a central mechanism of change. Although we did expect patient-therapist congruence on alliance ruptures to have less effect on subsequent session outcome in CBT than in BRT, we were surprised to find that the level of congruence

on ruptures was not related to outcome in CBT. These findings may have been the result of limited power to detect relatively small effects, and should be replicated in future studies with larger samples to verify their validity. If validated in future studies, it is possible that the distinct mechanisms of change activated in CBT vs. BRT may have contributed to the present findings. It has been suggested that alliance may play distinct roles in different treatments (Zilcha-Mano, 2017): whereas in some treatments (such as in BRT) it may be therapeutic in itself, in others (such as in CBT) alliance may serve to create an environment in which effective techniques can be implemented, without being therapeutic in itself. The present findings focused on state-like changes in the alliance and on the effect of patient-therapist congruence on such state-like changes. State-like changes have been conceptualized as reflecting the role of alliance as therapeutic in itself. Therefore, the focus of the present study on potential role of alliance as therapeutic in itself may have resulted in significant effects for BRT and not for CBT. In CBT, other mechanisms are expected to be curative and lead to therapeutic change (Kazantzis et al., 2018).

If the present findings are replicated in future studies, they may have important clinical implications. According to the empirically tested model of alliance rupture and repair (Safran & Muran, 1996, 2000), alliance rupture is an interpersonal marker that indicates a critical opportunity for exploring and understanding the processes that maintain a maladaptive interpersonal schema. The present findings suggest that when a rupture, a deterioration in the quality of the alliance appears, therapists and patients generally tend to agree on its occurrence. The findings suggest further that therapists can be trained to adopt a more vigilant stance regarding alliance ruptures, which in turn is generally associated with higher levels of congruence. Being able to detect ruptures when they occur, based on clear markers detected either by patients or therapists, is important for treatment success in a treatment where working through alliance ruptures is conceptualized as a key mechanism of change. Less clear markers of ruptures, such as agreement on relatively few occasional ruptures or minor disagreements on the number of ruptures may be most detrimental for subsequent session outcome. We may cautiously speculate that such vague markers of ruptures represent more withdrawal than confrontation ruptures (Eubanks, Lubitz, Muran, & Safran, 2019). In the absence of clear markers of ruptures, therapists may consider using techniques aimed at carefully exploring the rupture with the patient, before reaching decisions on how to handle the rupture (for a comprehensive description of such techniques, see Safran & Muran, 2000). Based on the model of alliance rupture and repair (Safran & Muran, 1996, 2000), it can be suggested that if properly addressed, alliance ruptures can provide an important opportunity for therapeutic change. Based on this empirically tested model, it may be suggested that by systematically exploring, understanding, and resolving alliance ruptures, the therapist can provide patients with a new constructive interpersonal experience that has the potential to modify their maladaptive interpersonal schemas.

When evaluating the implications of the present findings, several important limitations must be acknowledged. The most important of these is that the study focuses on only one part of the process delineated in the theoretical model of alliance rupture and repair (Safran & Muran, 1996, 2000). The study focuses on alliance ruptures, but the extent to which these ruptures were ultimately repaired is unknown and can only be inferred from the subsequent change in session outcome. Another important limitation is the use of single-item self-report

measures, especially for session outcome, a choice that was aimed to mitigate the burden of session-by-session assessment over a 30-session period. This measure has the advantage of being a subjective measure of outcome, based on the individuals' perceptions of their problems, and can provide an important patient-centered perspective of the process of therapeutic change (Hill & Betz, 2005; Flückiger, Hilpert, Goldberg, Caspar, Wolfer, Held, & Vîslă, 2019. Although the validity of this measure has been demonstrated before (Muran et al., 1992; Zilcha-Mano, Muran et al., 2016), it is critical to replicate the present findings using weekly measures of symptom severity, such as the Hamilton Rating Scale for Depression (Hamilton, 1967) and the Outcome Questionnaire (Lambert, Vermeersch, & Brown, 2004). The measure of the rupture also relied on patient and therapist self-reports, and consequently so did the operationalization of vigilance. Reliance on self-report measures has the advantage of the ease of use and the ability to capture the dyadic nature of the concept—based on the theoretical assumption that there is no absolute truth regarding the question whether or not there was a rupture, and that what matters is how the therapist report compares with the patient report (Mitchell, 1995). The disadvantage of this approach lies in the lack of comparison to an outsider's rating of ruptures in the alliance (Eubanks, Lubitz, Muran, & Safran, 2019). Another limitation is the sample size, which although not small compared to other psychotherapy research studies, may still have limited power to detect small effects, such as a potential effect of congruence between patients and therapists on alliance ruptures on subsequent session outcome in CBT. Similarly, the small number of patients treated by each therapist did not allow us to examine how much of the variance and congruence on ruptures and the effect of congruence on treatment outcome are products of individual differences between therapists. Additionally, we only used cases in which both patient and therapist reports on ruptures were available, which may result in some bias if this availability was not entirely random. Another limitation is that the sample was not ethnically and racially diverse, which limits the generalizability of the findings, and requires further research, with more heterogeneous samples. Finally, although we focused on therapists' and patients' awareness, it is difficult to know the extent to which these reports capture the complete picture of the processes occurring during the session or whether in their reports patients and therapists are referring to exactly the same moments in the session. One future direction of research is to add external observer ratings of alliance rupture and repair to patient- and therapist-reported alliance (Eubanks, Lubitz, Muran, & Safran, 2019; Eubanks, Muran, & Safran, 2015; Safran & Muran, 1996), as well as other markers of alliance such as biological markers (Zilcha-Mano, Porat, et al., 2018), and markers of motion (Ramseyer & Tschacher, 2011) and acoustic (Reich, Berman, Dale, & Levitt, 2014) synchrony between patients and their therapists. Another direction for further research is the investigation of how the goodness of fit between patient and therapist may affect their level of congruence on ruptures as well as the impact of such congruence on outcome. As has been demonstrated regarding patient-therapist fit in attachment orientations, such fit may affect patient-therapist congruence on alliance (O'Connor, Kivlighan, Hill, & Gelso, 2019).

The present study supports theoretical conceptualizations of alliance rupture as a dyadic construct. The findings suggest that patients and therapists tend to be in congruence on the ruptures occurring between them, with therapists tending to adopt a more vigilant stance. This tendency has been associated with higher congruence between patients and therapists.

The present study is the first to suggest that a vigilant stance on the part of the therapist can be taught, so that therapists receiving alliance-focused training as part of their training in brief relational therapy would tend to adopt a more vigilant stance. Although the findings require replication, they suggest that congruence on alliance ruptures may have greater effect on subsequent session outcome in a treatment where working through alliance ruptures is conceptualized as a key mechanism of change.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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Public Health Significance

The findings of the present study join those of previous research showing that therapists tend to show a more vigilant stance and report more alliance ruptures than their patients do. The current study is the first to suggest that therapists can be trained to adopt a more vigilant stance, to carefully monitor the alliance, and to show greater sensitivity to minor nuances in the alliance. The findings further suggest that in brief relational therapy (BRT), where alliance rupture resolution is conceptualized as a main mechanism of change, patients' and therapists' agreement and disagreement on whether a rupture in the alliance has occurred has a greater impact on subsequent session outcome, than in treatment where this is not the case (cognitive behavioral therapy, CBT). This finding supports the underlying therapeutic processes conceptualized to bring about therapeutic change in BRT, where negotiating such agreement and disagreement is perceived as a main mechanism of change.

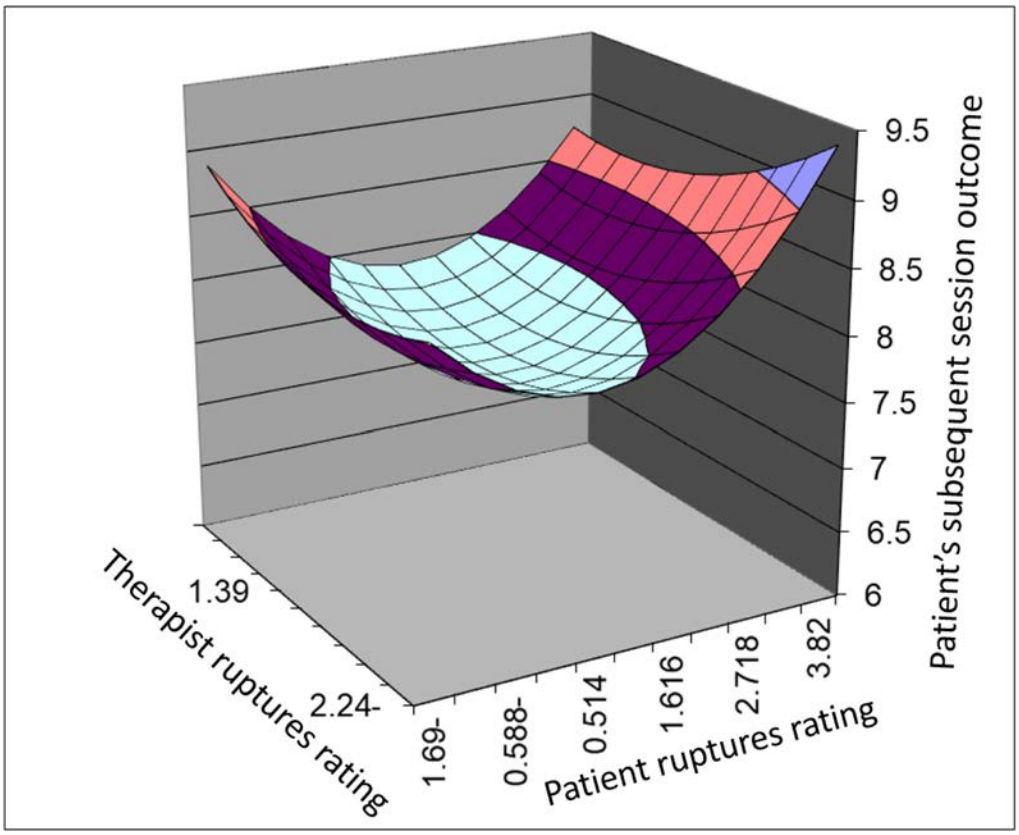

Figure 1.

Agreement and disagreement between patient and therapist ruptures and outcome in BRT. The line of agreement along which the patient alliance rating = the therapist alliance rating, extends from the closest to the farthest corners of the plane. The line of disagreement, along which patient and therapist rupture ratings are in opposition, where patient rupture rating = -therapist rupture rating, extends from the left to the right corner of the X-Y plane.

Table 1

Polynomial regression model for patient and therapist rupture rating and patient-rated severity of symptoms at the subsequent session in BRT vs. CBT

Effect	Estimate	SE	t(59)	P
Session outcome intercept	7.74	1.22	6.33	<.0001
Group	−0.83	0.27	−2.99	.003
Patient ruptures $_{T-1}$	−0.006	0.06	−0.10	.92
Therapist ruptures $_{T-1}$	0.04	0.04	0.74	.45
Patient ruptures^2 $_{T-1}$	−0.009	0.03	−0.24	.81
Therapist ruptures^2 $_{T-1}$	0.01	0.03	0.33	.73
Patient × therapist ruptures $_{T-1}$	0.07	0.05	1.36	.17
Patient ruptures $_{T-1}$ * Group	−0.16	0.09	−1.75	.08
Therapist ruptures $_{T-1}$ * Group	−0.12	0.06	−1.78	.07
Patient ruptures^2 $_{T-1}$ * Group	0.14	0.06	2.13	.03
Therapist alliance^2 $_{T-1}$ * Group	0.03	0.04	0.64	.52
Patient × therapist ruptures $_{T-1}$ * Group	−.10	0.07	−1.41	.15
Log of time	0.65	0.04	13.92	<.0.0001

Note: S.E. = Standard error.